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December 1960

notes on the
**AGRICULTURAL
ECONOMIES OF THE
FAR EAST**

IV Oceania

Foreign Agricultural Service

UNITED STATES DEPARTMENT OF AGRICULTURE

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This is the fourth in a series of 5 publications dealing with the agricultural economies of the Far Eastern area. These 5 publications deal with the following sub-regions.

- I Northeast Asia
- II South Asia
- III Southeast Asia
- IV Oceania
- V Asian Communist Countries

Prepared by the ^{XV}Far East Analysis Branch

IV. OCEANIA

AUSTRALIA

POPULATION

Total - Estimated 10 million in 1960; 21 percent, or about 2 million people, live in rural areas. More than 20 percent of the labor force of 4 million is engaged in agriculture.

Annual rate of growth - 2 percent.

Density - 3 persons per square mile.

ECONOMIC SETTING

Gross national product - \$13.7 billion (1958-59).

Per capita GNP - \$1,370.

Agricultural share of GNP - About one sixth.

Estimated average annual rate of growth - Approximately 5 percent since 1956.

Gold and foreign exchange holdings - \$1.2 billion as of December, 1959.

Trade as percent of GNP - Total trade valued at 26 percent of GNP for 1958-59.

Balance of payments - Wide price fluctuations for wool, an important export commodity, and periodic agricultural droughts cause considerable variation in Australia's balance of payments from one period to another.

PHYSICAL CHARACTERISTICS

Location - An island continent located in the southwest Pacific, Australia extends from about 11° to 45° south of the Equator and lies in both the tropical and temperate zones.

Area - 2,948,366 square miles, or 1.9 billion acres.

Agricultural area - Estimated at 1 billion acres or about half of total area in 1958-59 (includes vast areas of grazing land).

Arable land per capita - 2 acres. (If all of the vast grazing area is added to the arable land area, the figure becomes 100 acres per capita.)

Topography - Three-quarters of the land-mass lies between 600 and 1,500 feet above sea level in the form of a central basin and plateau. The Great Dividing Range runs the entire length of the eastern coast with a maximum elevation of 7,300 feet.

Climate - Australia is, on the whole, less subject to extremes of weather than are regions of similar size in other parts of the world. On the coast, the rainfall is often abundant and the atmosphere moist. In most of the interior, moisture is limited and the atmosphere dry.

Soils - The principal soils suitable for agriculture are found along the eastern sections of the continent and the coastal areas of the east, southeast and southern regions as well as throughout Tasmania.

AGRICULTURAL PRODUCTION

Number of farms - 253,000 as of 1955-56.

Average size of farms - 4,450 acres.

Land tenure - Land ownership varies according to land laws in each State. About 10 percent of the land is under private ownership, with 54 percent of the land held on a lease basis (largely from the government). The other 36 percent of the area is either unoccupied or held for the aboriginal population.

TABLE 1.--Principal crops: Acreage and production in Australia, 1959-60

Crop	:	Acreage	:	Production
	:	<u>1,000 acres</u>	:	<u>1,000 m.t.</u>
Wheat.....	:	12,000	:	5,283
Oats.....	:	3,000	:	653
Barley.....	:	2,400	:	695
Sugar.....	:	350	:	1,271
Corn.....	:	186	:	124
Dried vine fruits.....	:	124	:	68
Potatoes, white.....	:	110	:	559
Apples.....	:	66	:	251
Rice, paddy.....	:	55	:	131
Citrus.....	:	47	:	180
Tobacco.....	:	21	:	6
Pears.....	:	18	:	118
Pineapples.....	:	10	:	97

Principal crops - Wheat dominates the agricultural scene but rice, sugarcane, fruits, and vegetables are also important. Australia, the fourth largest wheat exporting country of the world, also ranks high in the production of other grain crops. It is noted for the production of all types of fruits, particularly fresh, dried, and canned deciduous fruits for export. In addition, it is the world's sixth largest producer of cane sugar.

Irrigation - Only a small percentage of Australia's cropland is either completely or partially irrigated. About half of the irrigated acreage--2 million acres--is in Victoria. Fruit, vegetables, sugarcane, and rice are the major crops irrigated.

Mechanization - Farm mechanization has increased significantly since the prewar period. The extensive use of fertilizers and the application of fertilizer and seed by aircraft contribute to the high productivity per worker.

Livestock industry - Livestock numbers (particularly sheep) have increased substantially in recent years. Australia is one of the leading sheep-raising countries of the world, with the bulk of its wool production being exported. Only about 5 percent of total production is used in Australia. Some regions emphasize beef cattle production while others specialize in dairying.

TABLE 2.--Livestock: Number in Australia, 1959

Type	Number	Type	Number
	Million		Million
Sheep.....	152.7	Cattle.....	16.2
Lambs.....	29.4	Beef.....	11.4
Wethers.....	43.6	Dairy.....	4.8
Ewes.....	77.8	Pigs.....	1.3
Rams.....	1.9		

TABLE 3.--Livestock Products: Production in Australia, 1959-60

Commodity	Production	Commodity	Production
	1,000 m.t.		1,000 m.t.
Meat.....		Milk.....	6,583
Beef and veal.....	811	Butter.....	195
Mutton and lamb....	587	Cheese.....	45
Pork.....	107	Hides and skins..	n.a.
Poultry.....	48	Wool.....	766

Extension services - Extension services, not as well established as in many advanced agricultural countries, are the direct responsibility of the State governments. The slow growth of extension work in Australia is attributed to the long distances between farms and farming areas, poor transportation, and lack of trained personnel.

Index of agricultural production (1952-54=100)- The index was 120 for 1959-60. On a per capita basis, it rose to 105 -- slightly less than 1 percent annually.

AGRICULTURAL POLICY

Agricultural policy - Except for wool, the major agricultural products are subject to State or Commonwealth marketing control. Eight commodities--wheat, dairy products, eggs, meat, canned fruits, apples and pears, dried vine fruits, and wine-- are marketed through quasi-government boards which are subject to federal statutory regulation. Most of the States have fruit, potato, milk, dairy produce, and egg boards which engage in marketing of produce and equalizing of returns to farmers. Two State boards are active in export marketing; the Australian Barley Board, representing producers of Victoria and South Australia, and the Queensland Sugar Board which coordinates the marketing of all cane sugar produced in Queensland and New South Wales.

Schemes for stabilization of prices to producers have existed for some years on domestic and export marketings of wheat and dairy products. Direct government subsidy payments are also involved in guaranteed prices to cotton producers and to dairy farmers. A Commonwealth tobacco-mixing regulation requires manufacturers to use specified percentages of domestic leaf in the manufacture of cigarettes and smoking tobacco in order to receive tariff concessions on imports of tobacco leaf. For several years, these percentages have been increased and have tended artificially to support the prices of domestic tobacco leaf far above world market prices. The price of linseed is also stabilized by the Linseed Crusher's Association. This proves to be an incentive to farmers in certain areas when prices for sheep, wool, and wheat are depressed.

AGRICULTURAL TRADE (1958-59)

Value of agricultural exports - \$1.42 billion.

Agricultural share of total exports - 80 percent.

Per capita agricultural exports - \$142.

Value of agricultural imports - \$170 million or 9 percent of total imports.

Annual per capita agricultural imports - \$17.

Major agricultural export items - On the average, wool accounts for about 50 percent of the value of total exports, and wheat, for another 10 percent. Other agricultural commodities of importance as exports are sugar, meat, and butter.

Major agricultural import items - Tea, unmanufactured tobacco, raw cotton, cacao, coffee, and copra account for the bulk of agricultural imports.

Principal agricultural markets - The United Kingdom took approximately 36 percent (by value) of the agricultural exports during 1958-59. Other major markets are Japan, France, United States, and Italy.

Principal suppliers - The United States is the major supplier of agricultural imports; namely, unmanufactured tobacco and cotton. Other important suppliers of agricultural products are Ceylon, Malaya, and Indonesia.

Trade policy - Until early 1960, imports were controlled by licensing to conserve foreign exchange. With the exception of controls on oilseeds and vegetable oils, most agricultural products are now exempt from import licensing. Strict quarantine measures, however, still prohibit the import of many commodities such as seeds, poultry, and certain types of meats. Tariffs are generally high to protect local producers. Preferential rates are maintained for imports from Commonwealth nations.

A mixing regulation applies to cotton manufacturers which permits a tariff waiver of 1.5d (\$0.014) per pound on imports of U. S. and Commonwealth cotton and 3d (\$0.028) per pound on Mexican cotton, providing the manufacturers buy all domestic supplies of cotton of spinning quality prior to negotiating for imports.

Agricultural exports are facilitated by bilateral agreements with the United Kingdom, Japan, Malaya, Ceylon, Indonesia, and France. Exports of meat to the United Kingdom are guaranteed by a long-term agreement effective through 1967.

TABLE 4.--Australia: Total agricultural trade, 1958-59 ^{1/}

Agricultural exports	: Value	:: Agricultural imports	: Value
	: Million		: Million
	: dollars		: dollars
Wool.....	677.3	Tea.....	33.8
Beef and veal.....	124.4	Tobacco.....	30.8
Wheat.....	86.6	Cotton, raw.....	13.3
Sugar.....	72.0	Cocoa, beans.....	7.6
Butter.....	55.9	Coffee.....	7.0
Other fruit and juices.....	55.2	Copra.....	6.6
Hides and skins.....	49.5	Sisal.....	4.6
Barley.....	38.0	Nuts, edible.....	3.7
Meat, canned.....	34.6	Wool.....	3.6
Flour, wheat.....	31.4	Seeds, gardening, field..	2.4
Raisins.....	25.1	Coarse hair and fiber...	2.3
Lamb.....	18.3	Linseed oil.....	3.3
Other agricultural.....	151.7	Other agricultural.....	51.0
Total agricultural.....	1,420.0	Total agricultural....	170.0
Nonagricultural.....	364.4	Nonagricultural.....	1,614.6
Grand total.....	1,784.4	Grand total.....	1,784.6

^{1/} F.O.B. port of shipment - \$2.24/pound.

Trade with Bloc countries - During 1958-59, Australia exported large amounts of wool to Hungary, Czechoslovakia, China, Poland, Romania, and the USSR. In 1960, considerable shipments of wheat have been made to North Korea.

TABLE 5.--U. S.-Australia agricultural trade: Value of imports and exports, 1959

U.S. exports to Australia	Value	U.S. imports from Australia	Value
	: Million:		: Million
	: dollars:		: dollars
Tobacco, unmgf.....	16.9	Meat.....	92.1
Cotton, raw.....	5.1	Wool, raw.....	29.1
Sausage casings, hog.....	1.2	Hides and skins.....	3.2
Vegetable oils and fats.....	.4	Casein or lactarene.....	2.0
Essential oils.....	.4	Sausage casings, sheep.....	1.9
Seeds, other than oilseeds..	.4	Meat extract.....	.5
Gelatin, edible.....	.2	Seeds, except oilseeds.....	.5
Other agricultural.....	.5	Other agricultural.....	1.9
Total agricultural.....	25.1	Total agricultural.....	131.2
Nonagricultural.....	240.4	Nonagricultural.....	61.3
Grand total.....	265.5	Grand total.....	192.5

FOOD CONSUMPTION

Daily per capita calorie consumption - About 3,200 (higher than in the United States).

Staple foods - Grain products, meat, sugar, dairy products, and fruits are the principal components of the Australian diet.

Nature of diets - The Australians are among the best fed people in the world. Not only is the level of caloric intake high but the consumption of high protein, protective foods is also quite high. The Australian diet is much like that of the United States except in meat consumption, and here the Australians substitute large quantities of mutton for beef.

POLITICAL SETTING

Type of government - Australia is a constitutional, self-governing nation and a member of the Commonwealth of Nations. It is also a member of the United Nations and SEATO.

Political history - Australia has been settled since 1788. The Commonwealth was proclaimed on January 1, 1901. The government is centralized, with a Parliament consisting of a Senate and House of Representatives.

NEW ZEALAND

POPULATION

Total - Estimated at 2.3 million. Ninety-three percent of the population is of European descent, and 7 percent is indigenous.

Rural - Approximately 37 percent of the total population resides in rural areas. About 17 percent of the population is engaged in farming.

Annual rate of growth - 2 percent.

Density - 22 persons per square mile.

ECONOMIC SETTING

Gross national product - \$3.1 billion (1958-59)

Per capita GNP - \$1,348.

Estimated average annual rate of growth - About 5 percent in recent years.

Agricultural share of GNP - About one-fourth.

Gold and foreign exchange holdings - \$0.3 billion as of end of June, 1960 (up slightly from 1959).

Trade as percent of GNP - 48 percent for 1959.

Balance of payments - The outlook for New Zealand's economy during 1959-60 is much brighter than for the 2 previous years. The surplus balance of payments situation achieved in 1958-59, in contrast to the large deficit for 1957-58, is expected to continue into 1960. For the calendar year 1959, the value of exports exceeded imports by \$0.2 billion.

PHYSICAL CHARACTERISTICS

Location - 1,600 miles southeast of Australia.

Area - 103,736 square miles, or 66.4 million acres.

Agricultural area - 65 percent of total, or 43 million acres (includes pasture area).

Arable land per capita - 0.6 acre (cropland only) - 19 acres when pasture and grassland are included.

Topography - Nearly 80 percent of New Zealand's terrain is mountainous. Less than one-quarter of the land surface lies below 650 feet above sea level. Livestock are grazed in nearly all areas of both the North and South Islands. Crops are grown in the lowlands along the coast of North Island, and the Canterbury plain and the Otago areas of South Island.

Climate - Rainfall ranges from 30 to over 100 inches annually, depending on the locality. Mean temperatures vary from 49° to 59°F. annually.

AGRICULTURAL PRODUCTION

Number of farms - 84,604.

Average size of farms - 503 acres.

Land tenure - Fifty percent of total arable land in 1958 was privately owned; 41 percent was owned by the Crown and 9 percent held by the Maoris.

Agricultural self-sufficiency - Agricultural exports are several times larger than agricultural imports.

Principal crops - Wheat, grass seeds, hay, barley, oats, and fruit.

TABLE 6.--Principal crops: Acreage and production in New Zealand, 1959-60

Crop	Acreage	Production
	1,000 acres	1,000 m.t.
Wheat.....	161	236
Oats.....	33	27
Barley.....	62	63
Corn.....	8	12
Peas.....	27	24
Potatoes.....	24	159
Apples.....	8	72
Citrus.....	n.a.	4
Tobacco.....	4	2
Grass seed and clover seed.....	275	15

Livestock industry - New Zealand's agriculture is based on livestock production. Chief emphasis is on the production of lambs, mutton, and wool for export. Feeder sheep and lambs are grown in the highlands and hilly areas for wool. They are later taken to the lowlands for fattening. Dairy farms are localized chiefly in the western districts of North Island. Specialized beef cattle enterprises are also found on North Island, although beef cattle are usually part of mixed farm operations with sheep and occasionally with dairy cattle.

Poultry is generally produced as a sideline with emphasis on egg production. Only recently has attention been given to table poultry.

TABLE 7.--Livestock: Number in New Zealand, 1959

Type	: : Number	::	Type	: : Number
	: <u>Thousand</u>	::		: <u>Thousand</u>
Sheep.....	46,877	::	Cattle.....	5,973
Lambs.....	11,291	::	Dairy.....	3,004
Wethers.....	2,438	::	Beef.....	2,969
Ewes.....	32,311	::	Pigs.....	692
Rams.....	837	::		

TABLE 8.--Livestock Products: Production in New Zealand, 1959-60

Commodity	: : Production	::	Commodity	: : Production
	: <u>1,000 m.t.</u>	::		: <u>1,000 m.t.</u>
Meat		::	Milk.....	5,303
Beef and veal.....	263	::	Butter.....	214
Mutton and lamb.....	453	::	Cheese.....	93
Pork.....	42	::	Nonfat dry milk.....	51
Poultry.....	4	::	Tallow.....	76
Hides and skins.....	<u>1</u> / 29	::	Wool.....	262

1/ Million pieces.

Irrigation - Not extensive. Confined chiefly to the drier sections of South Island in the Canterbury and Otago areas where grain crops and irrigated pastures prevail.

Mechanization - The high degree of mechanization in New Zealand agriculture is reflected in the wide use of tractors, milking machines, and aircraft. Planes are often employed in fertilizing, spraying, and seeding.

Index of agricultural production (1952-54 = 100) - The index was 121 for 1959-60. On a per capita basis it rose to 106--about 1 percent per year.

AGRICULTURAL TRADE (1959)

Value of agricultural exports - Approximately \$768 million.

Agricultural share of total exports - About 95 percent.

Per capita agricultural exports - \$334.

Value of agricultural imports - About \$74 million.

Agricultural share of total imports - 12 percent.

Annual per capita agricultural imports - Approximately \$32.

Major agricultural export items - New Zealand is the world's largest exporter of cheese, lamb, and mutton, and second largest butter exporter. Other important items are wool, hides and skins, and animal fats.

TABLE 9.--New Zealand: Total agricultural trade, 1959

Agricultural exports	: Value :	Agricultural imports	: Value
	:Million:		:Million
	:dollars:		:dollars
Wool.....	248.8	Wheat.....	12.1
Meat, fresh, chilled, frozen..	197.8	Sugar, raw.....	7.0
Butter.....	155.1	Tea.....	6.3
Cheese.....	61.4	Vegetable oils and oilseeds..	2.9
Hides and skins.....	36.8	Oranges.....	2.0
Nonfat dried milk.....	12.3	Raisins.....	1.8
Sausage casings.....	11.5	Cocoa beans, raw.....	1.6
Tallow.....	8.9	Fibers, other.....	1.6
Apples and pears.....	6.7	Other dried fruit.....	1.4
Meat, canned and cured.....	3.9	Sausage casings, hog.....	.8
Seeds, grass.....	2.7	Tobacco, unmanufactured.....	.5
Seeds, vegetable.....	1.2	Wool.....	.3
Other agricultural.....	20.6	Rubber, crude.....	.1
Total agricultural.....	<u>767.7</u>	Other agricultural.....	<u>24.6</u>
Nonagricultural.....	<u>65.3</u>	Total agricultural.....	<u>74.0</u>
Total all commodities.....	833.0	Nonagricultural.....	<u>568.0</u>
		Total all commodities.....	642.0

Source: New Zealand Monthly Abstract of Statistics, March 1960

TABLE 10.--U.S.-New Zealand agricultural trade: Value of imports and exports, 1959

U.S. exports to New Zealand	: Value :	U.S. imports from New Zealand	: Value
	:Million:		:Million
	:dollars:		:dollars
Tobacco, unmanufactured.....	6.1	Meat, fresh, chilled, frozen..	61.3
Sausage casings.....	.7	Wool, raw.....	42.8
Prunes, dried.....	.7	Hides and skins.....	15.6
Oranges and tangerines, fresh:	.3	Casein or lactarene.....	4.6
Vegetable oils and fats.....	.1	Sausage casings.....	1.6
Seeds other than oilseeds.....	.1	Dairy products.....	1.3
Other agricultural.....	.2	Other agricultural.....	2.8
Total agricultural.....	<u>8.2</u>	Total agricultural.....	<u>130.0</u>
Nonagricultural.....	<u>40.0</u>	Nonagricultural.....	<u>3.5</u>
Total all commodities.....	48.2	Total all commodities.....	133.5

Major agricultural import items - From a food standpoint, New Zealand is dependent on imports of wheat, sugar, certain fruits and vegetables, and tea. It is also dependent on imports of such raw materials as tobacco, vegetable oils and seeds, crude rubber, and fibers. New Zealand, not having a domestic textile industry, imports cotton in the form of textiles.

Principal agricultural markets - Roughly 60 percent of all agricultural exports are consigned to the United Kingdom. This is a reduction from the 85 percent of prewar years, and has resulted from increased production in the United Kingdom and greater competition in U.K. markets for New Zealand's

major exports, such as meat and dairy products. New Zealand has had to look towards new markets for its agricultural products. These new markets have included the United States, France, Western Germany, Japan, Southeast Asian areas and Latin American countries. The United States is the second largest market for New Zealand's agricultural exports.

Principal suppliers - Australia is the major supplier of agricultural commodities. The United States, the United Kingdom, and Malaya are also important suppliers.

Trade with Bloc countries - Trade with Russia, Poland, China, Czechoslovakia, and Bulgaria is still a very small part of New Zealand's total trade. It has, however, been increasing in value in recent years.

AGRICULTURAL AND TRADE POLICY

Production - New Zealand's production of major commodities is stimulated by fixed prices to producers for butterfat used in butter and cheese, floor prices for meat and wool, and fixed prices for wheat. Farmers producing wheat are guaranteed a market for all of their output at an annual price set by the Government on the basis of costs of production. Prices of domestic wheat and imported wheat and flour are equalized by a consumer subsidy to stabilize the retail price of bread. Retail prices of butter are also equalized by a government consumer subsidy which keeps domestic butter prices below export prices.

Marketing - Quasi-governmental marketing authorities exist for several important agricultural products either exported or imported. Chief among these are the Dairy Products Marketing Commission, New Zealand Apple and Pear Marketing Board, New Zealand Meat Producers' Board, and a newly created New Zealand Meat Export Development Company. On the import side, all imports of citrus, bananas and pineapples are controlled by the Fruit Distributors, Ltd. and all wheat and flour imports are controlled by the Wheat Committee.

Agricultural development - Increased production has been facilitated by New Zealand's postwar land development program which has been undertaken by the Government's Land and Survey Department in cooperation with the Maori Affairs Department. Some 20 percent of about 2.4 million acres of previously undeveloped land has now been cleared, fertilized, seeded, stocked and divided into more than 3,500 farms for settlement, mainly by ex-service men.

Trade policy - Trade is maintained with the Commonwealth countries by preferential tariffs and membership in the Sterling Area Pool. Tariffs are high in most instances to protect home industry. Import licensing in New Zealand dates back to prewar and has been restrictive during most of the postwar period in order to conserve foreign exchange. Not until recently did the licensing procedures eliminate discriminative treatment of imports. Although certain import licensing relaxations were introduced in 1959 and 1960, most agricultural products are either embargoed or subject to quotas based on previous licensing history of importers. Only sugar, tobacco, butter, and cheddar cheese are completely exempt from licensing as of 1961.

A mixing regulation is in effect for tobacco which provides that manufacturers must take up at least 30 percent of the domestic leaf before imports are permitted. High import tariffs also widen the price differential between domestic and imported leaf. More than 90 percent of New Zealand's imported tobacco leaf comes from the United States.

New Zealand has engaged in a number of bilateral trade agreements over the years, but the principal agreements now in effect have been negotiated since 1958. New Zealand, through these agreements, has received certain market assurances for its agricultural exports in the United Kingdom, Japan, West Germany, and Israel. In addition, government and marketing agencies have been active in promoting development programs for exports abroad. Emphasis has been placed on increased exports of dairy products to Asian countries and Latin America; meats, to the Far East, Western Europe, Latin America, Canada, and the United States and apples and pears to the Far East, Middle East, British West Indies, and Latin America.

FOOD CONSUMPTION

Daily per capita calorie consumption - 3,350 calories in 1958--one of the world's highest per capita caloric consumption rates.

Staple foods - Bread, potatoes, beef, mutton, butter, cheese, and fruits.

Nature of diets - Approximately 50 percent of the diet consists of meats and dairy products. Other leading foods are grain products and vegetables. The consumption of meat is well above prewar levels. Recent trends have been toward the consumption of more processed fruits and vegetables, especially frozen items.

POLITICAL SETTING

Type of government - New Zealand is a self-governing Dominion in the Commonwealth of Nations with an elected General Assembly and an appointed Prime Minister.

Political history - In 1840 the British proclaimed political sovereignty and initiated an organized settlement program. The colony achieved its present Dominion status in 1907.

FIJI ISLANDS

POPULATION

Total - Estimated at 385,000 in 1959, of which 49 percent is Indian, 23 percent Fijian, and the remainder Chinese and European. About 60 percent are engaged in agriculture. The annual rate of growth is now estimated at 3 percent.

ECONOMIC SETTING

Agriculture accounts for about 50 percent of the gross national income, (\$70 million in 1957). Per capita incomes average about \$185.

PHYSICAL CHARACTERISTICS

Location and area - The Fiji Islands, located about 1,200 miles north of New Zealand, consist of 330 islands with a total area of 7,055 square miles. Two of the islands, Viti Levu and Vanua Levu, contain 88 percent of the agricultural area. As of 1958, about 8 percent of the total land area (361,000 acres) was utilized in crop cultivation.

Physiography - Climate is tropical, with mean average temperatures ranging from 67° to 78°F. Rainfall in the two major islands ranges from 70 inches in the drier areas to about 200 inches in the highest mountain terrain.

AGRICULTURAL PRODUCTION

Production pattern - Agriculture is divided into three major parts--Fijian, Indian, and European. Fijian agriculture consists of subsistence food crops, coconuts, and bananas. The Indians, who account for about 90 percent of the sugarcane output, also engage in dairying, and rice, tobacco, vegetable, and fruit production. Europeans are engaged in dairying and sugar, coconut, and copra production. Cattle raising--beef and dairy--and pigs are the most important livestock activities.

Agricultural development - Eighty-four percent of total land area is held in reserve for Fijians. Some of the most fertile lands are unfarmed and held by Fijians who are reluctant to lease to Indians and Europeans with capital for development.

TABLE 11.--Principal crops: Acreage and production in Fiji, 1958

Crop	Acreage	Production
	<u>1,000 acres</u>	<u>1,000 m.t.</u>
Coconuts.....	168	<u>1/</u> 31
Sugar.....	129	200
Rice.....	31	25
Root and food crops <u>2/</u>	36	81
Bananas.....	5	<u>3/</u> 149

1/ Copra equivalent. 2/ Dalo (Taro) and cassava. 3/ Thousand cases.

AGRICULTURAL TRADE

Fiji's principal agricultural exports are destined for the United Kingdom, Canada, and New Zealand in return for agricultural products from these countries and Australia. Sugar exports are limited to quotas under the International and Commonwealth Sugar Agreements.

TABLE 12.--Fiji: Total agricultural trade, 1959

Agricultural exports <u>1/</u>	Value	Agricultural imports	Value
	Thousand dollars		Thousand dollars
Sugar.....	18,847	Feedstuffs.....	1,603
Coconut and coconut prod....	5,178	Rice.....	1,345
Bananas.....	213	Dairy products <u>2/</u>	1,012
Other agricultural.....	<u>683</u>	Wheat flour.....	961
Total agricultural.....	<u>24,921</u>	Meat.....	850
Nonagricultural.....	<u>3,817</u>	Other agricultural.....	<u>3,617</u>
Grand total.....	28,738	Total agricultural.....	<u>9,388</u>
		Nonagricultural.....	<u>33,094</u>
		Grand total.....	<u>42,482</u>

1/ Excludes re-exports. 2/ Excludes honey.

FOOD CONSUMPTION

Roots, bananas, fish, pork, and poultry are among the chief Fijian foods. The Indian diet consists largely of rice, pulses and ghee.

POLITICAL SETTING

Fiji is a British Crown Colony. It has a local government with Indians, Fijians, and Europeans having equal representation.

NEW CALEDONIA

POPULATION

Total - Estimated at 80,000 in 1958 (includes outlying islands). Forty-seven percent of the population is indigenous, 31 percent European, and 12 percent Oriental. The proportion of the work force employed in agriculture varies according to employment availabilities in the nickel mines.

Density - About 4 persons per square mile.

ECONOMIC SETTING

Nature of economy - Two separate economies exist in this area. One is the native economy, which is underdeveloped and based on subsistence agriculture; the second is a European commercial-industrial economy, centered around mining, transportation, import-export trade, and such agricultural activities as coffee and beef cattle production.

Economic assistance - Between 1949 and 1958 the French Government and private capital interests invested approximately \$320 million in development projects in New Caledonia.

Assistance to agriculture - Agricultural development is aided by government extension services, and the research and credit facilities of various institutions.

PHYSICAL CHARACTERISTICS

Location and area - New Caledonia, with an area of 9,500 square miles, is located 700 miles east of Australia. About 36 percent of the total land area, or 2 million acres, can be used for farming. Of this agricultural area, it is estimated that about 960,000 acres is suitable for crops.

Topography - The main island has a broken, mountainous terrain sometimes extending over 5,000 feet in height. It has steep slopes and deep-cut valleys. The eastern part of the island is heavily forested. The west coastal areas consist of foothills, low plains, tidal flats, and mangrove swamps.

Climate - Temperatures range from 56° to 94°F. Rainfall varies from 42 inches in the south to 83 inches in the north. The area lies in the hurricane belt, though storms of this type average only one a season. Trade winds from south and east keep the island moderately cool throughout the year.

AGRICULTURAL PRODUCTION

New Caledonia's agriculture suffers from shortages of labor and farmers' indifferences toward improved farming techniques. Livestock production is New Caledonia's most important agricultural pursuit.

Principal crops - Coffee and copra. Coffee, both arabica and robusta types, is produced mainly by natives. Copra production is confined largely to the loyalty Islands and is chiefly a native crop. A variety of food crops are grown for local consumption; namely, corn, taro, yams, rice, cassava, cane sugar, potatoes, wheat, green beans, peanuts, and tropical fruits.

TABLE 13.--Crops: Production, 1959

Crop	Production
	: 1,000 m.t.
Copra.....	1/ 2.3
Coffee.....	1.6
Corn.....	1.2
Potatoes.....	.9
	:

1/ Exports only.

TABLE 14.--Livestock: Number, 1959

Type	Number
	: Thousands
Cattle.....	94
Horses.....	11
Sheep.....	4
Goats.....	18
Pigs.....	17

AGRICULTURAL TRADE

The principal market is France, and the principal suppliers are France and Australia.

TABLE 15.--New Caledonia: Total agricultural trade, 1959

Agricultural exports	Value	Agricultural imports	Value
	: Thousand		: Thousand
	: dollars		: dollars
Coffee.....	1,012	Milk.....	529
Copra.....	399	Rice.....	459
Hides and skins.....	14	Flour.....	442
Total above.....	1,425	Sugar.....	372
All other.....	28,175	Total above.....	1,802
Grand total.....	29,600	All other.....	26,260
	:	Grand total.....	28,062

POLITICAL SETTING

New Caledonia is a territory of the French Union and is governed by a Governor who is also High Commissioner for France in the Pacific.

NETHERLANDS NEW GUINEA AND TERRITORIES

OF PAPUA AND NORTHEAST NEW GUINEA

POPULATION

Total - Latest estimated population for all three areas is as follows:

	<u>Netherlands N. Guinea</u>	<u>Northeast N. Guinea</u>	<u>Papua</u>
Indigenous.....	710,000	1,326,195	478,595
European and Asian....	<u>33,000</u>	<u>15,073</u>	<u>8,555</u>
	743,000	1,341,268	487,150

Density - Approximately 10 persons per square mile.

ECONOMIC SETTING

Nature of economies - Cash in these economies is limited. Most of the population is concentrated in villages and rural areas of the interior where a primitive barter exchange, based on shells, metals, etc. still exists.

Economic assistance - The administering governments for these areas make annual financial grants to their respective territories. They encourage the development of agriculture through the promotion of cash crops and agricultural research, and the formation of cooperatives and extension services.

PHYSICAL CHARACTERISTICS

Location - The three areas comprise the island of New Guinea--the world's second largest island. Situated just below the Equator, the island lies east of Indonesia and north of Australia. Netherlands New Guinea occupies the entire western half of the island, while Northeast New Guinea and Papua occupy the northeast and southeast portions respectively.

Area - Netherlands New Guinea has an area of 161,000 square miles while Papua and Northeast New Guinea together cover 183,500 square miles.

Physiography - A high mountainous range runs through the center of the entire island, with foothills, swamplands, and river valley areas bordering most of the coastal regions. Temperatures range from 70° to 90° F. and are accompanied by very high humidity. Rainfall varies with locality ranging from 55 inches in some parts to 250 inches in Netherlands New Guinea.

AGRICULTURAL PRODUCTION

Land tenure - The land policy in all three territories is directed toward the protection of land rights for the native populations. In Papua and Northeast New Guinea, the Australian government holds about 95 percent of the land as "native land." In these two areas, land is available to

European and other nationalities for agricultural and pastoral uses on 99-year leases. In Netherlands New Guinea, the administering government protects the rights of the Papuan population. Occupation of land by other nationalities is permitted only by special government authorization.

Agricultural technology - Three types of agriculture prevail. They are European plantations, European and native cash cropping, and native subsistence farming. Very little of the agriculture is mechanized.

TABLE 16.--Principal crops: Acreage in Papua and Northeast New Guinea, 1959

Crop	Acreage
	<u>1,000 acres</u>
Coconuts.....	349
Cacao.....	56
Rubber.....	28
Coffee.....	6

TABLE 17.--Principal crops: Acreage in Netherlands New Guinea, 1958

Crop	Acreage
	<u>1,000 acres</u>
Sago.....	1/
Tuber and root crops..	110
Coconuts.....	25
Nutmeg and mace.....	5
Cocoa.....	1.6

1/ Not available

Livestock industry - At present only pigs and poultry are important in the native economies of all three areas. In Papua the Australian government is encouraging the expansion of the cattle industry to supply domestic meat needs. Experimental Zebu-Angus crosses have proved well adapted to the tropical climate. Experimental stock-breeding programs are also being conducted in Netherlands New Guinea.

AGRICULTURAL TRADE

TABLE 18.--Papua and New Guinea: Agricultural and total trade, 1958-59

Agricultural exports	Value	Agricultural imports	Value
	<u>Thousand dollars</u>		<u>Thousand dollars</u>
Copra.....	12,889	Meat and meat prep.....	3,346
Coconut oil.....	6,170	Rice.....	2,551
Cocoa beans.....	3,342	Tobacco, unmfgd. & twist..	853
Rubber, crude.....	2,580	Sugar, refined.....	629
Coffee.....	1,021	Flour.....	537
Other agricultural.....	2,197	Milk evap., cond., & dried	374
Total agricultural.....	28,199	Other agricultural.....	2,691
Other.....	4,209	Total agricultural.....	10,981
Grand total.....	32,408	Other.....	33,972
		Grand total.....	44,953

Principal markets - Australia, United Kingdom, and Canada.

Principal sources of imports - Australia, United Kingdom, and Japan.

TABLE 19.--Netherlands New Guinea: Agricultural and total trade, 1958

Agricultural exports	Value	Agricultural imports	Value
	Thousand dollars		Thousand dollars
Copra.....	756	Meats, canned and frozen..)	
Nutmeg and mace.....	595	Dairy products.....)	
Gums and resins.....	279	Wheat flour.....)	
Hides and skins ^{2/}	267	Potatoes.....)	^{1/} 7,951
Cocoa beans.....	2	Canned vegetables.....)	
Other agricultural.....	4	Canned fruits, jams, etc.)	
Total agricultural.....	1,903	Sugar, refined.....)	
Nonagricultural.....	4,387	Other agricultural.....)	
Grand total.....	6,290	Total agricultural.....	7,951
		Nonagricultural.....	14,373
		Grand total.....	22,324

^{1/} No separate breakdown by commodities.

^{2/} Crocodile and lizard skins.

Principal markets - Netherlands and Singapore.

Principal sources of imports - Netherlands, Singapore, Australia.

FOOD CONSUMPTION

Staple native foods are sago, yams, taro, sweetpotatoes, coconuts, bananas, maize, and pulses. Aside from tropical fruits, most European and oriental foodstuffs are imported.

POLITICAL SETTING

Netherlands New Guinea is an independent territory under the jurisdiction of the Netherlands. Northeast New Guinea is a trust territory administered by Australia. Papua has been a territory of Australia since 1906.

WESTERN SAMOA

POPULATION

Total - Population at the end of 1959 was estimated at 106,000 of which 94 percent were Samoans and 6 percent of European status. The rate of natural increase is estimated at 4 percent annually. Approximately 95 percent of the labor force is in agriculture.

Density - 85 persons per square mile.

ECONOMIC SETTING

Nature of economy - Since World War I, Samoan village agriculture has shifted from a self-subsistent to a market-oriented type of production. Cash crops are considered subsidiary to production of food crops. A decline in the living standards since World War II has been avoided only as a result of unusually favorable trade.

Economic assistance - The government maintains three experimental farms to test new crops for the islands and service farmers in new farm practices. New Zealand supplies technical assistance.

PHYSICAL CHARACTERISTICS

Location - 1,600 miles northeast of New Zealand.

Area - 1,090 square miles of which 23 percent (160,000 acres) is proven arable land. Arable land per capita is about 1.5 acres.

Physiography - Agriculture is limited primarily to fertile and productive volcanic soils on the coastal plains. Much of the interior uplands is still undeveloped, although some hill land is now being developed. Annual temperatures range from 74° to 85° F. and annual rainfall averages 113 inches.

Land tenure - Title to most of the land is reserved by the government in trusteeship for Samoans. The few estates held by Europeans are leased.

Agricultural technology - Most of the crops produced are either tree or root crops and require only minimum amounts of cultivation.

Livestock industry - Pigs and poultry are particularly important in local village economies. Horses and mules are used as pack animals. Cattle number 15,000--500 dairy cattle and 9,500 beef animals are estate owned.

TABLE 20.--Principal crops: Acreage and production in Western Samoa, 1959

Crop	Acreage	Production
	<u>1,000 acres</u>	<u>1,000 m.t.</u>
Coconuts.....	36.0	1/ 2/ 10
Bananas.....	13.3	1/ 22
Cacao.....	8.0	4.5
Root crops.....	6.1	3/

1/ Exported during 1958 (nearly all production is exported).

2/ Copra equivalent. 3/ Not available.

AGRICULTURAL TRADE

Principal markets - The United Kingdom and New Zealand each took about 45 percent of the 1958 agricultural exports and the United States another 8 percent, of which cacao was the main item.

Principal sources of imports - New Zealand, Australia, and Fiji.

TABLE 21.--Western Samoa: Principal commodities in agricultural trade for 1959

Agricultural exports	Value	Agricultural imports	Value
	<u>Thousand dollars</u>		<u>Thousand dollars</u>
Copra.....	3,775	Meat.....	706
Cocoa beans.....	2,747	Sugar.....	269
Bananas.....	2,514	Wheat flour.....	234
Coffee.....	8	Tobacco, unmgd.....	230
Hides and skins.....	4	Dairy products.....	163
Other agricultural.....	28	Rice.....	132
Total agricultural.....	<u>9,076</u>	Other agricultural.....	<u>470</u>
Nonagricultural.....	<u>38</u>	Total agricultural.....	<u>2,204</u>
Grand total.....	<u>9,114</u>	Nonagricultural.....	<u>4,914</u>
		Grand total.....	<u>7,118</u>

FOOD CONSUMPTION

Staple foods are coconuts, taro, ta'amu, sugar, yams and various tropical fruits. Demand for flour and canned meats is growing.

POLITICAL SETTING

Western Samoa is a United Nations trusteeship administered by New Zealand. Independence is tentatively scheduled for 1962.

Official Business

